

## **EXHIBIT 90**

### **Declaration of Kelly Hogan**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA  
CASE NO. 1:14-CV-954**

**STUDENTS FOR FAIR  
ADMISSIONS, INC.,**

**Plaintiff,**

**v.**

**UNIVERSITY OF NORTH  
CAROLINA et al.,**

**Defendants.**

**DECLARATION OF KELLY HOGAN**

## DECLARATION OF KELLY HOGAN

I, Kelly Hogan, hereby make this declaration from my personal knowledge and, if called to testify to these facts, could and would do so competently:

### **Background, Professional Experience, and Honors**

1. I was born in New York and raised in New Jersey. My father was a middle school social studies teacher. As a child, I enjoyed art and aspired to be an architect. In college, however, I developed an interest in genetics.

2. In 1996, I earned a Bachelor of Science in Biology, summa cum laude, from The College of New Jersey in Ewing, New Jersey. In 2001, I earned a Ph.D. in Pathology and Laboratory Medicine from The University of North Carolina at Chapel Hill (“UNC-Chapel Hill” or “University”).

3. As I earned my Ph.D., I discovered that I loved teaching even more than research.

4. I served as a Postdoctoral Fellow in the UNC-Chapel Hill Department of Biology from 2001 to 2004. During that time, I studied blood vessel patterning in mouse development.

5. After my fellowship, I served as a Lecturer in Biology at UNC-Chapel Hill until 2010 and as a Senior Lecturer in Biology from 2010 to 2013. I became a Senior STEM Lecturer and Director of the Office of the Instructional Innovation for the College of Arts and Sciences at UNC-Chapel Hill in 2014. I am currently a STEM Teaching

Associate Professor in Biology and Assistant Dean of the Office of Innovational Instruction.

6. I am the Director of the Quality Enhancement Plan for the Commission on Colleges of the Southern Association of Colleges and Schools. This is a multi-million dollar project that improves learning in the sciences through a variety of evidence-based reforms to pedagogy and curriculum.

7. I am a member of the Advisory Board for the Center for Faculty Excellence (“CFE”) at UNC-Chapel Hill.

8. This summer, I co-directed the Howard Hughes Medical Institute’s Summer Institute on Scientific Teaching at the University. At that institute, over 30 faculty spent the week learning the evidence behind active learning, learned to implement lessons they designed, learned about evaluating evidence-based teaching, and strategically planned ways we could spread evidence-based teaching to more faculty.

9. I am a founding member of THRIVE, a University retention and success initiative designed to ensure that all students succeed.

10. I am involved with the Chancellor’s strategic planning initiatives. I serve on the Chancellor’s Transition Experiences subcommittee as part of the Modernizing Student Support working group and the New Learning Imperative Group.

11. I am a member of the Coordinating Committee for the College of Arts and Sciences’ new curriculum.

12. I have served as a Faculty Associate at the UNC-CH Center for Genomics and Society and a member of the Steering Committee for the National Science Foundation Research Coordination Network Biology Teaching Assistant Project. I have also served as the project lead for Biology for the Association of American Universities (“AAU”) STEM Education initiative grant for the College of Arts and Sciences. I have served as a Colonel Robinson Science Technology Engineering and Math Scholar Faculty Mentor and as a Carolina Scholars Mentor.

13. I have received several awards, including the campus-wide Bryan Public Service Award, the Carolina Women’s Leadership Council Faculty Mentoring Award, the campus-wide Tanner Award for Excellence in Undergraduate Teaching, the National Academic Advising Association’s Outstanding Advising Award for Faculty Academic Advising, the campus-wide, student-chosen Student Undergraduate Teaching and Staff Award, the campus-wide Chapman Family Teaching Award, Biology Department Instructor of the Year, and the Spirit of Inquiry Award from the Pope Foundation for Higher Education. I am a National Academies Education Fellow in the Life Sciences, an Institute for the Arts and Humanities Fellow, and a National Academies Education Mentor in the Life Sciences.

14. Hogan Decl. Ex. 1 is a true and correct copy of my CV. Hogan Decl. Ex. 2 is a photograph of me from my UNC webpage.

**Diversity Drives Innovations in Teaching at UNC-CH**

15. I am a Caucasian Woman.

16. Early on in my teaching career, when I was teaching Principles of Biology (“Biology 101”) at UNC-Chapel Hill, I was shown data from one year that showed we had students, particularly from certain racial backgrounds, who were struggling. I found this deeply disturbing because I had taught roughly half of the 1600 students who took Biology 101 that year.

17. Numerous variables beyond my control already differentiated the poorer-performing students from the better-performing students, including level of preparedness, quality of high school instruction, and socioeconomic factors, among others. Nevertheless, I wondered whether my method of teaching might somehow be contributing to the issue. I began to explore whether there might be things I could change that would help struggling students perform better in my course.

18. After reading the empirical research literature on effective teaching methods, I learned that changing my instructional approach might indeed make a difference. More specifically, I learned that reducing the amount of lecturing and incorporating a greater variety of learning activities in class could help.

19. The more active approach gave students more in-class activities, often done in teams, including in-class response system technologies that allowed me to receive real time data about the students’ individual and collective understanding. There were online exercises assigned to be completed before class along with textbook reading, intended to force students to practice thinking about the material rather than just memorize it, and

still others for review after a lesson. The approach held students accountable to practice in a way that the lecture-only format did not.

20. My course philosophy is to use a variety of methods to hold students accountable for their learning. I think of myself as a facilitator that sets up learning activities for a student, giving many opportunities to make mistakes and learn from their mistakes. As technologies make us re-think the value of a brick and mortar building for education, my goal is to make the best use of our physical time together—that is students should work collaboratively with peers and have time to practice with the guidance of the expert (the professor) being present. I believe in frequent assessments with feedback through homework and in-class activities and online quizzes. By the time a student sits for an exam, his/her thinking will have gone from foundational content/vocabulary to determining how concepts connect to each other.

21. This more interactive instructional format, with less lecture and more in-class activities and collaborative learning, significantly reduced achievement gaps for African-American, Latino, and first-generation college students in my classes, while also improving the average performance of the White students.

22. For instance, data I published in 2014 showed that all students performed better in a more structured, interactive class. When controlling for differences in gender, SAT and term, the gap between African-American students and their highest-performing counterparts was halved. The gap for first-generation college students was eliminated.

23. More recent unpublished data indicate that the gap for Latino students has decreased to nearly zero, as well, whether controlling for SAT or not. That same data shows that, controlling for SAT, there is no achievement gap for underrepresented minorities. While gaps still existed for Black students when the data is disaggregated, we are committed to analyzing the data and determining where we still have work to do to help all of our students succeed in the sciences.

24. My work was published in CBE Life Sciences Education and has been featured in the New York Times, The Atlantic, and The Washington Post.

25. My research shows that our students are capable of success if we remove the institutional barriers preventing some students from performing as well as their peers in the sciences. Furthermore, my research shows that eliminating those barriers improves learning outcomes for all students.

26. Notably, all students in interactive courses also reported feeling more of a sense of community than students in lecture-style courses. Given that feelings of isolation weaken a student's ability to retain information—and that students of color and first-generation college students tend to feel more isolated than other students—this sense of community and belonging might help explain why interactive teaching methods work so well.

27. Surveys of students who had taken the class showed that those who had the more active approach were far more likely to have done the reading, and they spent more



hours on the work, participated more in class, and were more likely to view the class as a community.

28. The AAU has partnered with UNC-Chapel Hill to reorient gateway STEM courses to increase active learning. The interactive style of teaching now has been widely adopted for introductory courses throughout STEM fields at UNC-CH.

29. With these changes, we are also re-thinking classroom design, and our CFE has taken an active role in the University's experimentation with active learning classroom designs. Most classrooms were designed to emphasize the presentation of information from the front of the room. With faculty members interested in classrooms that facilitate 1) sustained eye contact among students, 2) instructor movement throughout the classroom, and 3) transitions between lecture, small group work, and full class discussion, CFE works with departments to investigate new classroom design and furniture ideas.

30. As Assistant Dean leading the Office of the Instructional Innovation for the College of Arts and Sciences, I help faculty think about ways they can strengthen their teaching methods to improve the education (and thus, performance levels) for all students.

31. My class is also open for faculty peer visits. The Faculty Peer Visits Program provides UNC-CH faculty members with an opportunity to see peers representing a variety of disciplines implementing interactive methods in a live classroom

setting. The program is a collaboration between CFE and the Office of Undergraduate Education.

### **The Educational Benefits of Diversity at UNC-CH**

32. I am aware of and support the UNC faculty resolution on the educational benefits of diversity. I believe that the work we have done in restructuring science courses helps us to better achieve those benefits.

33. An interactive course can help break down stereotypes if—and only if—there is sufficient diversity in the class. I have seen stereotypes begin to crumble when, for example, a group of four African-American women gave particularly insightful answers to a set of challenging scientific questions. Their participation created a learning opportunity for the entire 400-person class. Learning opportunities such as those are not possible without a sufficiently diverse student body. Students also echo the benefit of learning from each other in diverse groups when asked on end of course evaluations about the benefits of group work. The value of exposure to diverse perspectives is a theme I see in the evaluations.

34. Just as research on interactions of groups demonstrates people work harder when working in diverse groups, students assigned to groups for the semester, rather than choosing their partners, confirm and reflect on this in my end of course evaluations.

35. In September 2016, I led an interactive “Carolina Conversations” event on Inclusive Classrooms, which was hosted by the Chancellor and moderated by Rumay Alexander, Director of the Office of Inclusive Excellence, along with Professor Viji

Sathy. The event was focused on the multiple identities of individuals and their interplay in inclusive classrooms. The forum setting allowed students, staff, and faculty to have conversations about how to make the University a welcoming place that values inclusion and diversity. One message echoed from marginalized students was that they want to be assigned to groups so they are not left out of collaborative learning. I and other faculty took that to heart and my own course evaluations reflect the value of that.

36. Hogan Decl. Ex. 3 consists of photographs of the Carolina Conversations Event.

37. I recently reported to colleagues, administrators, and the Classroom Steering Committee about my experience in assigning groups in my Biology 101 class for Spring 2017, as opposed to letting students select their groups as in previous years. The feedback I received about the benefits of working in diverse groups was very positive and compelling. Hogan Decl. Ex. 4 is a true and correct copy of the powerpoint report I prepared.

38. In the report, I included the following quote I showed to my students about diversity when I was explaining my rationale for assigning them to groups: “When disagreement comes from a socially different person, we are prompted to work harder. Diversity jolts us into cognitive action in ways that homogeneity simply does not. The pain associated with diversity can be thought of as the pain of exercise. You have to push yourself to grow your muscles. The pain, as the old saw goes, produces the gain. In just

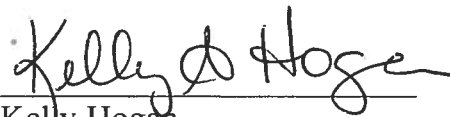
the same way, we need diversity—in teams, organizations and society as a whole—if we are to change, grow and innovate.”

39. Like students, faculty stand to benefit significantly from the diversity of the student body. Without the diversity in my classes, for example, I would not have had the impetus to improve my teaching. Importantly, the improvements I made did not just help struggling students, they helped all of my students.

40. Furthermore, the diversity in my classes certainly has expanded my worldview. As examples, I now have a much better understanding of what it is like to be an African refugee, a Black female from a rural county, and a victim of domestic violence. This sort of awareness is important for STEM students and faculty alike. I can transfer that awareness or understanding to other situations, too. In short, I am a more empathetic and accommodating person because of the diversity in my classes.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct.

Executed on: 7/19/2017

  
Kelly Hogan

## **Exhibit 1 to Hogan Declaration**

July 2017

**Kelly A. Hogan**  
**Assistant Dean for the Office of Instructional Innovation**  
**QEP Director**  
**College of Arts & Sciences**  
**STEM Teaching Associate Professor in Biology**  
 919-843-6047  
 104B Wilson Hall, CB#3280  
 University of North Carolina at Chapel Hill

**Personal:**

- Safe Zone Certified (LGBTQ awareness training)
- Mental Health First Aid Certification
- Carolina First Advocate (Certification and advocacy for first generation college students)

**Education:**

<i>University of North Carolina (Chapel Hill, NC)</i> Ph.D., Pathology and Laboratory Medicine Doctoral Advisor: Dr. Susan T. Lord <i>Doctoral Research:</i> The Role of Variant Fibrinogen and Increased Plasma Fibrinogen Levels in Thrombotic Disease.	1996-2001
<i>The College of New Jersey (Ewing, NJ)</i> B.S., Biology, <i>Summa cum laude</i>	1992-1996

**Professional Experience:**

Quality Enhancement Plan (QEP) Director for the College of A&S Assistant Dean of the Office of Instructional Innovation for the College of A&S Director of the Office of the Instructional Innovation for the College of A&S <i>University of North Carolina-CH</i> STEM Teaching Associate Professor in Biology, <i>University of North Carolina-CH</i> Senior STEM Lecturer in Biology, <i>University of North Carolina-CH</i> Senior Lecturer in Biology, <i>University of North Carolina-CH</i> Lecturer in Biology, <i>University of North Carolina-CH</i> Post-doctoral Fellow, <i>University of North Carolina (Department of Biology)</i> <i>Post-doctoral research:</i> Blood vessel patterning in mouse development. Sponsor: Dr. Victoria L. Bautch	2017- 2017- 2014 -2016  2017-current 2014 -2017 2010-2013 2004-2010 2001-2004
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**Honors:**

Biology Department Instructor of the Year <i>A student nominated/chosen award</i> National Academic Advising Association (NACADA)'s Outstanding Advising Award for Faculty Academic Advising Tanner Award for Excellence in Undergraduate Teaching <i>Campus-wide award</i> Carolina Women's Leadership Council Faculty Mentoring Award Bryan Public Service Award, UNC <i>Campus-wide award</i> National Academies Education Mentor in the Life Sciences Delta Upsilon Fraternity/ADPi Sorority Teaching Award, UNC <i>A student nominated/chosen award</i> Institute for the Arts and Humanities (IAH) Fellow, UNC National Academies Education Fellow in the Life Sciences	2016  2015 2015  2014  2014 2012-2015 2012  2012 2011
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Spirit of Inquiry Award, Pope Foundation for Higher Education <i>A statewide, student-nominated, committee chosen award</i>	2011
Biology Department Instructor of the Year <i>A student nominated/chosen award</i>	2011
Chapman Family Award, UNC <i>A campus wide Chancellor's Award</i>	2011
Student Undergraduate Teaching and Staff Award, UNC <i>A Campus-wide, student nominated/chosen award</i>	2010

## **Bibliography:**

### **Books and Chapters**

Reece, J.B., Taylor, M.R., Simon, E.J., Dickey, J.L., **Hogan, K.A.** (2017). Campbell Biology: Concepts and Connections. 9<sup>th</sup> edition. Pearson Education, Inc.

Simon, E.J., Dickey, J.L., Reece, J.B., **Hogan, K.A.** (2015) Campbell Essential Biology, Pearson Education, Inc.

Reece, J.B., Taylor, M.R., Simon, E.J., Dickey, J.L., **Hogan, K.A.** (2014). Campbell Biology: Concepts and Connections. Pearson Education, Inc.

Hogan, K.A., Krumper, J., McNeil, L.E., Crimmins, M.T (2015) **Advancing Evidence-Based Teaching in Gateway Science Courses through a Mentor-Apprentice Model**. In Weaver, G.C., Burgess, W.D., Childress, A.L. and Slakey, L (Eds). *Transforming Institutions: Undergraduate STEM Education for the 21st Century* Purdue University Press.

**Hogan, 2009** "Immunity and Health" chapter in What is Life? By Jay Phelan. WH Freeman, New York, 2010.

Hogan, 2008. Stem Cells and Cloning, Second Ed., Pearson/Benjamin Cummings

### **Refereed Papers and Articles**

Eddy, S.L. **Hogan, K.A.** (2014) Getting under the hood: how and for whom does increasing course structure work? *CBE Life Sci Educ*, 13, 453-468.

Passman JN, Dong XR, Wu SP, Maguire CT, **Hogan KA**, Bautch VL, Majesky MW. A sonic hedgehog signaling domain in the arterial adventitia supports resident Sca1+ smooth muscle progenitor cells. *Proc Natl Acad Sci U S A*. 2008 Jul 8;105(27):9349-54.

**Hogan, K.A.**, Ambler, C.A., Chapman, D.L., Bautch, V.L. The neural tube patterns vessels developmentally using the VEGF signaling pathway. *Development* 2004, **131**: 1503-13

**Hogan, K.A.** and Bautch V.L. A Blood vessel patterning at the embryonic midline. *Curr Top Dev Biol*. 2004;62:55-85. Review.

**Hogan, K.A.**, Merenbloom, B.K., Kim, H.S., Lord S.T. Neonatal bleeding and decreased plasma fibrinogen levels in mice modeled after the dysfibrinogen Vlissingen/Frankfurt IV. *J Thromb Haemost*. 2004;2:1484-7.

Terasawa F, **Hogan, K.A.**, Kani, S., Hirose, M., Eguchi, Y., Noda, Y., Hongo, M., Okumura, N. Fibrinogen Otsu I: A g Asn319, Asp320 Deletion Dysfibrinogen Identified in an Asymptomatic Pregnant Woman. *Thromb Haemost* 2003, **90**: 757-8.

**Hogan, K.A.**, Weiler-Guettler, H. and Lord, S.T. Mouse Models in Coagulation. *Thromb Haemost*, 2002, **87**:563-74.

Remijn J.A., IJsseldijk M.J., Van Hemel B.M., Galanakis D.K., **Hogan K.A.**, Lounes K.C., Lord S.T., Sixma J.J., De Groot P.G. Reduced Platelet Adhesion in Flowing Blood to Fibrinogen by Alterations in Segment Gamma316-322, Part of the Fibrin-Specific Region. *Br J Haematol*, 2002, **117**:650-7

**Hogan, K.A.**, Maeda, N., Kluckman, K.D., Lord, S.T. Synthesis of a Mouse Model of the Dysfibrinogen Vlissingen/Frankfurt IV. *Ann. N.Y. Acad. Sci.*, 2001, **936**:117-121.

**Hogan, K.A.**, Bolliger, B., Okumura, N., Lord, S.T. The Formation of b Fibrin Requires a Functional "a" Site. *Ann. N.Y. Acad. Sci.* 2001, **936**: 219-222.

Lounes, K.C., Okumura, N., **Hogan, K.A.**, Lord, S.T. The Polymerization Site "a" Function Depends on the Structural Integrity of Its Nearby Calcium-Binding Site. *Ann. N.Y. Acad. Sci.*, 2001, **936**:205-209.

**Hogan, K.A.** Lord, S.T., Okumura, N., Terasawa, F., Galanakis D.K., Scharrer, I., Gorkun, O.V. A Functional Assay Suggests that Heterodimers Exist in Two C-Terminal g-Chain Dysfibrinogens: Matsumoto I and Vlissingen/Frankfurt IV. *Thromb. Haemost.* 2000, **83**: 592-7.

**Hogan, K.A.** Gorkun, O.V., Coates, Lounes, K.C., A., Weisel, J.W., Hantgan, R.R., Lord, S.T. Recombinant Fibrinogen Vlissingen/Frankfurt IV: The Deletion of Residues 319 and 320 from the g-chain of Fibrinogen Alters Calcium Binding, Fibrin Polymerization, Cross-linking, and Platelet Aggregation. *J. Biol. Chem.*, 2000, **275**: 17778-17785.

### **Refereed or Invited Talks**

"Creating Scientists: Seafood Forensics". Kelly A Hogan, Blaire Steinwand, John Bruno. UNC College of Arts and Sciences Foundation, May 4, 2017.

"Scaling up CUREs and Beyond", Kelly A Hogan, UNC System CURE Summit, UNC Greensboro, Greensboro NC. April 30, 2017.

"Inclusive Classrooms" Kelly A Hogan, Viji Sathy, Erin Malloy. UNC Center for Faculty Excellence's Faculty Showcase. Chapel Hill, NC, April 24, 2017.

"Including everyone in the Learning" . Kelly A Hogan Radford College, Radford, Virginia. Biology Department. April 3, 2017

"Including everyone in the Learning". Kelly A Hogan, Bellevue College, Seattle, Washington. March 10, 2017

"Inclusive teaching" Kelly A Hogan and Viji Sathy. UNC School of Public Health, Chapel Hill, NC. January 27, 2017.

"What does it take to change culture around teaching in the sciences?" Kelly A Hogan and Danielle Jamieson, UNC School of Medicine, Academy of Educators, November 28, 2016

"Removing the Hierarchy structure within Faculty Ranks to Disseminate Wide-Scale Pedagogy and Curriculum Reform." Kelly A Hogan and Blaire J Steinwand. National Association of Biology Teachers National Conference, Denver, Colorado. November 5, 2016.



"Workshop: Structuring the Classroom for Inclusive Teaching" Kelly A Hogan and Viji Sathy. Howard Hughes Medical Institute Collaboratory at Duke University, Durham, NC. October 28, 2016

"Driving Global Learning in the Science Classroom. Zika: A Global Problem in our Own Backyards". Kelly A Hogan, World View K-12 Global Education Symposium, UNC Friday Center, Chapel Hill, NC. October 20, 2016.

"Including everyone in Learning in the Sciences", Kelly A Hogan, The College of New Jersey, Ewing, NJ. October 12, 2016

"How we're increasing achievement for all students in the sciences and beyond" Kelly A Hogan, Chapel Hill Rotary Club, Chapel Hill, NC. September 9, 2016

"Workshop: Structuring the Classroom for Inclusive Teaching" Kelly A Hogan and Viji Sathy. Teaching and Learning Conference (TLC16) at Elon University, Elon, NC. August 18, 2016

"Inclusive Teaching Workshop Part 1: Inequity in the Classroom and Stereotype Threat." Kelly A Hogan and Keith Payne. UNC Chapel Hill. March 31, 2016.

"Carolina" Invited Keynote Speaker at Scholars Day UNC. Scholarships and Student Aid, March 6, 2016

"Tips for Transforming Instructor Centered Classes into Learner centered Experiences for Non-Majors Biology" Pearson Webinar. Kelly A Hogan and Eric J. Simon. February 18, 2016.

"Increasing Achievement for All Students at Carolina" Invited Speaker to Houston Alumni Group. February 16, 2016.

"Increasing Achievement for All Students: In Three Steps." Invited Speaker at Campbell Law School, Raleigh, NC; February 9, 2016.

"December Commencement Address", UNC-Chapel Hill. Dean Dome, December 13, 2015.

"What's Working Well in Course Redesign." Kelly A. Hogan and Julie Waldrop. UNC CFE's Faculty Showcase. November 13, 2015.

"How We're Increasing Achievement for ALL Students in the Sciences and Beyond at Carolina" Invited talk to Carolina Alumni Board, Oct 17, 2015.

"Including Everyone in Learning in the Classroom" Invited speaker at East Carolina University, September 3, 2015

"Advancing Evidence-Based Teaching in Gateway Science Courses in Three Departments through a Mentor-Apprentice Model Kelly A. Hogan, Jennifer Krumper, Laurie E. McNeil, Michael T. Crimmins; Society for the Advancement of Biology Education Research, National Meeting, Minneapolis, July 2015

"Professor's Perspective." UNC Summer Orientation Talk for students and parents June 2, 2015.

"Why Accountability is Necessary When Implementing Active Learning" Invited speaker at UNC Department of Psychology, April 29, 2015.

"Engaging Tomorrow's Scientists". Kelly A Hogan and Mike Crimmins. Invited speaker at UNC Department of Math April 20, 2015.

"How I Increased achievement for all students in my introductory biology course." Invited speaker at North Carolina A&T, April 16, 2015.

"Engaging Tomorrow's Scientists." UNC College of the Arts and Sciences Chairs meeting. March 25, 2015

"How I Increased achievement for all students in my introductory biology course." Invited speaker at Moraine Valley Community College System, Palos Hills, Illinois, March 17, 2015.

"How I Increased achievement for all students in my introductory biology course." Wayne County Community College System, Detroit, Michigan Feb 6<sup>th</sup>, 2015.

"Engaging Tomorrow's Scientists." Invited speaker for the University of North Carolina's Board of Trustees meeting. September 25, 2014

"Reforming 'Gateway' Science Courses through a Mentor-Apprentice Model." Invited speaker at the Transforming Institutions: 21st Century Undergraduate STEM Education. Oct 23, 2014

"From Traditional Lecturer to Change Agent." 2014. Invited speaker for the Department of Developmental and Cell Biology. University of California Irvine.

"Improving Student Success with a High Structured Model of Learning." Invited workshop speaker at the University of North Carolina School of Medicine, March 25, 2014

Enliven your Classroom with Instructor Exchange. Co-presented with Eric Simon (Biology, New England College) National Association of Biology Teachers (NABT) National Meeting, November 22, 2013

A case for the more structured Classroom. 2013. Webinar co-presented with Viji Sathy (UNC Psychology) for the UNC System General Administration

"How and For Whom Does Active Learning Work?" Poster presentation at the SABER 2013 meeting

"Inclusive Teaching" Workshop leader for the National Academies Regional Summer Institute at the University of Georgia. 2013.

"Restructuring a large, introductory course to help underrepresented minority and first-generation students perform better." Poster presentation at the SABER 2012 meeting.

"The Extroverted Storyteller vs. the Introverted Nurturer. Different Approaches to Building Rapport." Co-presented with Dr. Jeannie Loeb (Psychology Department, UNC) at the Lily Conference. Greensboro, 2012.

"Evaluation of a Large Undergraduate Lecture Course Redesigned to Promote Engagement". Invited speaker for the UNC Gillings School of Public Health, as part of a series in new teaching practices. 2012

"Engaging Students in Large Classes". Invited speaker for the UNC Center for Faculty Excellence's Faculty Showcase, 2011.

"Poll Everywhere Pilot". Invited speaker at the TRI-IT instructional technology meeting for professionals from Triangle and Triad area universities, including UNC-CH, Duke, NCSU, NCCU, and Wake Forest. 2010.

"Using online learning activities to transform the classroom experience" Invited speaker for the inaugural Shift+Control+TEACH symposium at UNC-CH. 2010

"Students Please Turn your Cell Phones On." Invited speaker in the Teaching and Learning with Technology Collaborative (TLTC) seminar series. UNC, 2010.

#### **Other Non-Refereed Work**

**Hogan K.A.** (2015) Getting under the hood: how and for whom does increasing course structure work? The National Institute for Staff and Organizational Development (NISOD) Innovation Abstracts, University of Texas at Austin. Volume 37, No.12.

A Pearson Higher Education teacher Talks video (TedTalks style): *Closing the Achievement Gap*.

<https://www.youtube.com/watch?v=ZvFst7cZ8SI>

**Hogan, K.** "Help students who perform poorly on exams learn more effectively". Guest contributor to the Center for Faculty Excellence (CFE) on the UNC CFE 100+ blog. Can be accessed at: <http://cfe100plus.web.unc.edu/2012/10/23/tip-29-help-students-who-perform-poorly-on-exams-learn-more-effective-study-methods/>

**Hogan, K.** "Adopt practices that help close the achievement gap for minority and first generation students". Guest contributor to the Center for Faculty Excellence (CFE) on the UNC CFE 100+ blog. Can be accessed at: <http://cfe100plus.web.unc.edu/2012/09/25/tip-25-adopt-practices-that-help-close-the-achievement-gap-for-minority-and-first-generation-students/>

Founder/Author of Pearson Publisher's **Instructor Exchange**. Can be accessed at:

<http://instructorexchange.pearsoncmg.com/>

**Hogan, K. 2011.** "Dear Santa, Just Bring Chocolate". Part of a series about personal genomic testing choices. Can be accessed at: <http://genomicsandsociety.wordpress.com/2011/12/21/and-what-would-you-like-for-christmas/>

## **Teaching record:**

**Senior STEM Lecturer, Department of Biology, UNC-CH**

**2004- current**

Biology 101: Principles of Biology. A large introductory course for both majors and non-majors sampling concepts from cell biology, genetics, evolution, diversity, animal and plant structure/function, and ecology. High structure active learning format. Approx. 400 students.

Biology 113: Modern Issues in Biology. Discussion and case-study based course that covers major controversial issues in genetics and medicine. for non-majors. Major topics include genetic testing, stem cells, and genetically modified foods. Approx. 30 students

Biology 202: Genetics and Molecular Biology. A large introductory class for both majors and non-majors focused on concepts related to genetic information storage, transmission, and flow. Students work collaboratively to explain concepts, design experiments, analyze complex problems. High structure active learning format. Approx. 200 students.

Biology 291: Teaching Apprentice in Biology. Students who teach within in my other courses follow a training curriculum plan executed by the Learning Center. Students facilitate active learning in the classroom for three hours per week and hold an extra hour or two of help sessions for students.

Biology 294: APPLES service learning Biology 101. A one credit addition to Biol 101 for students wanting to learn hands-on about blood, platelet, and bone marrow donation.

Biology 395: Undergraduate Independent Research. An informal advising of students seeking Biology credit for research they perform in the School of Medicine at UNC. Approx 3-5 students/semester.

## **Grants:**

**Project site grant to transform STEM education**

2013-2017

Source: American Association of Universities

Role: Biology Department project leader

**Center for Genomics and Society**

Source: National Human Genome Research Institute of the NIH

2013-2014

Role: Co-Principal Investigator

**Lenovo Instructional Innovation Grant (CFE 100+)**

2010-2011

Source: Lenovo/Center For Faculty Excellence UNC

Role: Principal Investigator

**Ueltschi APPLES Service Learning Course Development Grant**

2009-2011

Source: Ueltschi Family/APPLES UNC

Role: Principal Investigator

**NIH Individual NRSA**

2002-2004

Source: NIH

Role: Principal Investigator

**American Heart Association Post-doctoral Fellowship**

2001

Source: AHA

Role: Principal Investigator

## **Professional Service:**

### **To discipline**

Host for HHMI/NAS Mobile Summer Institute for Scientific Teaching	2017
Steering Committee member for the NSF Research Coordination Network Biology Teaching Assistant Project (BioTAP)	2015-
GlaxoSmithKline Women in Science Mentor	2014-
Organizer/invited speaker and Education Fellow for the Southeast Regional Summer Institute on Scientific Teaching	2011-2012

### **Within UNC**

#### **Campus-wide**

<b><i>Coordinating Committee for College of A&amp;S General Ed Curriculum Redesign</i></b>	2016-current
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<b><i>Chancellor's Strategic Planning Committee: The Learning Imperative</i></b>	2017-current
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<b><i>Chancellor's Strategic Planning Committee for Modernizing Student Support: Subcommittee on Transitions</i></b>	2017-current
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<b><i>Program Lead for the QEP's Course-based Undergraduate Research Experience (CURE) Initiative</i></b>	2017-current
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The 2017 QEP, five year multi-million dollar five-year project, has five different programs. Each program has a lead, I lead the CURE, in addition to being the QEP Director.

<b><i>Provost's Committee on University Teaching Awards</i></b>	2016-2017
Chair of the Board of Governor's Sub-committee Award	

<b><i>Co-chair for Provost's Committee on University Teaching Awards</i></b>	2015-2017
Oversaw nine different faculty and student committees choosing campus wide awards	

<b><i>Quality Enhancement Plan Steering Committee for SACSCOCs</i></b>	2014- 2016
The planning committee sets future curriculum goals and writes a report for the accrediting body for the undergraduate curriculum.	

<b><i>OUE Committee on Undergraduate Learning Assistants</i></b>	2015- 2016
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The group collects information and provides recommendations to the Senior Associate Dean of Undergraduate Education regarding best practices for undergraduates to serve as peer instructors inside and outside the classroom

<b><i>Advisory Board for the Center for Faculty Excellence</i></b>	2013-current
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The group advises the Director of the Center in strategic planning for the Center.  
Committee on Diversity in Undergraduate Education

<b><i>Provost's Retention Working Group: Thrive at Carolina</i></b>	2014- current
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The group provides ideas to the Provost for ways to budget funds to affect the retention specifically of transfer students, STEM students, and under-represented minority students

<b><i>Provost's Committee on Inclusive Excellence and Diversity</i></b>	2013-2014
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A group that provides the Provost with action item recommendations around diversity issues in all areas affecting the faculty, students, staff.

<b>Colonel Robinson Science Technology Engineering and Math (STEM) Scholar Faculty Mentor</b> I am assigned to approximately 30 students with my husband, Brian Hogan in Chemistry. These students are on full academic scholarships. We serve to enrich their education through one-on one and group meetings, trips, academic programs etc	2012- 2016
<b>Co-Chair, Task Force on Transforming Instruction in Large Lecture Courses</b> The mission of the task force is to examine how we can more effectively teach large lecture courses at UNC, paying close attention to educational technologies and faculty attitudes and behaviors relative to educational transformations.	2012- 2013
<b>Mentor for the Graduate Student Teaching Certificate Program</b> Closely mentored a graduate student in first teaching experiences through an apprentice and coaching model.	2012- 2015
<b>Co-Director for the "Entering Mentoring" Workshops at UNC</b> A six-week workshop run each semester geared to graduate students, post-docs, and new faculty that teaches trainees that good mentoring can be learned.	2012- 2014
<b>Faculty Advisory Committee to the Honor Court</b> A five –member faculty campus-wide committee to advise the student run honor court by providing feedback to cases and serving as a liason between the court and faculty.	2011- 2012
<b>Carolina Scholars Faculty Mentor</b> I am assigned to approximately 20 students with my husband, Brian Hogan in Chemistry. These students are on full academic scholarships. We serve to enrich their education through one-on one and group meetings, trips, academic programs etc.	2008 -2012
<b>CSTEP Faculty Mentor.</b> This is a program that helps transfer students meet faculty members of their home department. Approximately 3 students/year.	2008-2010
<b>Workshop Leader</b> for "How to Read a Scientific Paper". This is a two-part workshop that I developed for incoming UNC graduate students.	2006- 2008.
<b>Part-time Faculty Academic Advisor, Natural Sciences &amp; Mathematics Division</b> Help students choose courses and careers in a one-on-one setting, sign off on curriculum requirements, and guide first year students at summer orientation.	2005-2011
<b>Faculty Mentor for Carolina Covenant Scholars Program</b> Served as a one-on-one mentor for 15 students per year in this program.	2004-2008
<b>Departmental:</b> <b>Resident Director for Biology 202 in Costa Rica</b> Led ~15 students in a UNC Study Abroad program in Biology for 6 weeks	2016
<b>Project Leader for Biology in the AAU STEM education project</b> Helped plan mentor-apprentice scheduling for the department, mentored, coordinated faculty learning communities, collected data for assessment of program	2013-2017
<b>Biology Department Graduation Committee</b> Help organize event for 400 students and their families, prepare program, Read names at graduation.	2005- current
<b>Biology Department Advising Committee</b>	2005-current

Help students navigate the Biology Department, plan outreach events, such as study workshops and career panels each semester.

***Summer School Administrator for the Biology Department***

2008-2011

Plan course listings, advertise courses, and hire instructors for approximately 15-17 courses for the summer sessions. We enroll over 1,000 students in the summer.

## **Exhibit 2 to Hogan Declaration**



